

IN THE CLAIMS:

Claims 1 – 70 Canceled.

71. (New) A winder for winding a web to produce a rolled product comprising:
a web transport apparatus for conveying a web downstream, the web transport apparatus comprising a conveyor belt;
a plurality of winding modules positioned along the web transport apparatus, each winding module comprising:
a) a mandrel in operative association with a driving device for rotating the mandrel; and
b) a positioning apparatus in operative association with the mandrel, the positioning apparatus being configured to move the mandrel into and out of engagement with the conveyor belt, wherein, when placed in engagement with the conveyor belt, a nip is formed between the mandrel and the conveyor belt;
and wherein the nip between the mandrel and the conveyor belt is used to contact a web being conveyed on the conveyor belt in order to initiate winding of the web on the mandrel.
72. (New) A winder as defined in claim 71, wherein the driving device for rotating the mandrel comprises a motor.
73. (New) A winder as defined in claim 71, wherein each mandrel is brake controlled.
74. (New) A winder as defined in claim 71, wherein each mandrel is movably positioned so that the distance between the mandrel and the web transport apparatus is varied so as to produce the nip having a nip pressure, a web being wound into a rolled product by combination of mandrel rotational speed, web surface speed, incoming web tension, and the nip pressure.
75. (New) A winder as defined in claim 71, wherein the web transport apparatus comprises a vacuum conveyor belt configured to hold a web against a surface of the conveyor belt as the web is conveyed downstream.

76. (New) A winder as defined in claim 71, wherein the web transport apparatus comprises an electrostatic conveyor belt configured to hold a web against a surface of the conveyor belt as the web is conveyed downstream.

77. (New) A winder as defined in claim 71, wherein each winding module further comprises a core loading apparatus and a product stripping apparatus.

78. (New) A winder as defined in claim 71, wherein each mandrel is vacuum supplied.

79. (New) A winder as defined in claim 71, wherein each mandrel is constructed of a carbon fiber composite.

80. (New) A winder as defined in claim 71, wherein each winding module further comprises a tail sealing apparatus for adhering a trailing end of a web onto a rolled product.

81. (New) A winder as defined in claim 71, further comprising an adhesive supply device for applying adhesive to a web prior to engagement with one of the winding modules.

82. (New) A winder as defined in claim 71, wherein each winding module further comprises a core loading apparatus configured to load cores onto each mandrel prior to initiating winding of a web onto the mandrel.

83. (New) A winder as defined in claim 71, wherein the plurality of winding modules are located in a substantially linear arrangement with respect to one another along the web transport apparatus.

84. (New) A winder as defined in claim 71, wherein the plurality of independent winding modules are positioned at the end of a tissue machine.

85. (New) A winder as defined in claim 71, wherein each winding module further comprises a product stripping apparatus.

86. (New) A winder as defined in claim 71, wherein each winding module further comprises a core loading and product stripping apparatus.

87. (New) A winder as defined in claim 71, wherein the winder includes at least three winding modules.

88. (New) A winder as defined in claim 71, wherein the web transport apparatus includes a first side and a second and opposite side and wherein the mandrel of each

winding module is slidably positioned over the web transport apparatus, the winding module being movable to the first side of the web transport apparatus into a racked out position;

the winder further comprising a core loading apparatus for loading cores on a mandrel, the core loading apparatus being positioned on the second side of the web transport apparatus.

89. (New) A winder as defined in claim 71, wherein the web transport apparatus includes a first side and a second and opposite side and wherein the mandrel of each winding module is slidably positioned over the web transport apparatus, the winding module being movable to the first side of the web transport apparatus into a racked out position;

the winder further comprising a product stripping apparatus for stripping rolled products off a mandrel, the product stripping apparatus being positioned on the second side of the web transport apparatus.

90. (New) A winder as defined in claim 71, wherein, after winding of the web on the mandrel is initiated, the positioning apparatus is configured to move the mandrel out of engagement with the conveyor belt, the driving device rotating the mandrel for continued winding of the web.

91. (New) A process for unwinding a parent roll into multiple product rolls comprising:

unwinding a tissue web from a parent roll and conveying the tissue web downstream on a web transport apparatus, the web transport apparatus comprising a conveyor belt, and wherein a plurality of winding modules are positioned adjacent to the web transport apparatus, each winding module containing a mandrel;

positioning one of the mandrels adjacent to the conveyor belt for forming a nip between the web transport apparatus and the mandrel; and

thereafter conveying a leading edge of the tissue web into the nip formed between the mandrel and the web transport apparatus so as to initiate winding of the web onto the mandrel.

92. (New) A process as defined in claim 91, further comprising the step of placing a core onto the mandrel prior to positioning the mandrel adjacent to the conveyor belt so that the tissue web is wound onto the core.

93. (New) A process as defined in claim 91, further comprising the steps of slitting the tissue web as the web is unwound to form a first slit and a second slit and feeding each slit to a separate winding module.

94. (New) A process as defined in claim 91, further comprising the steps of:
loading a core on the mandrel;
accelerating the mandrel to a desired rotation speed;
positioning the winding module to initiate contact between the rotating core and the web;
controlling the position of the winding module and the rotational speed of the mandrel during the winding step to produce a rolled product with desired characteristics;
and
stripping the rolled product from the winding module.

95. (New) A process as defined in claim 91, wherein after winding is initiated, winding is continued only by surface winding such that the mandrel is positioned towards the web transport apparatus at a controllable magnitude to create a nip pressure to control winding of the web.

96. (New) A process as defined in claim 91, wherein after winding of the web is initiated, further winding is carried out only by center winding by driving the mandrel at a desired rotational speed.

97. (New) A process as defined in claim 91, wherein after winding is initiated, further winding is carried out by using a combination of center winding and surface winding, center winding occurring by driving the mandrel and surface winding occurring by positioning the mandrel towards the web transport apparatus at a controllable magnitude to create a nip pressure to control winding of the web.

98. (New) A process as defined in claim 91, further comprising the steps of forming a rolled product and stripping the rolled product from the mandrel.

99. (New) A process as defined in claim 91, wherein the winding modules are configured to act independently of one another wherein if any winding module is disabled

or experiences a process fault, the remaining winding modules are configured to still wind the web to produce the rolled product.

100. (New) A process as defined in claim 91, further comprising the step of cutting the tissue web after a rolled product is formed on the mandrel and sealing a trailing edge of the tissue web to the rolled product.

101. (New) A process as defined in claim 91, wherein the conveyor belt comprises a vacuum conveyor belt and wherein the process further comprises the step of holding the tissue web against a surface of the conveyor belt as the web is conveyed downstream.

102. (New) A process as defined in claim 91, wherein the conveyor belt comprises an electrostatic conveyor belt and wherein the process further comprises the step of holding the tissue web against a surface of the conveyor belt as the web is conveyed downstream.

103. (New) A process as defined in claim 92, further comprising the step of stripping a rolled product from the mandrel after the rolled product is formed.

104. (New) A process as defined in claim 103, wherein at least three winding modules are positioned adjacent to the web transport apparatus and wherein during the process at substantially the same time, a core is loaded on a first mandrel of a first winding module, a roll of material is formed on a second mandrel of a second winding module, and a wound roll is stripped from a third mandrel of a third winding module.

105. (New) A process as defined in claim 91, further comprising the steps of:
cutting the tissue web after a rolled product is formed on the mandrel;
continuing to unwind the tissue web from the parent roll and conveying a leading edge of the tissue web downstream on the web transport apparatus; and
conveying the leading edge of the tissue web into a nip formed between the web transport apparatus and a second mandrel so as to initiate winding of the web on the second mandrel.

106. (New) A process as defined in claim 91, wherein when a process fault is detected, the process further comprises the steps of:
cutting the tissue web to form a leading edge and to discontinue winding on the mandrel;

continuing to unwind the tissue web from the parent roll and conveying a leading edge of the tissue web downstream on the web transport apparatus; and conveying the leading edge of the tissue web into a nip formed between the web transport apparatus and a second mandrel so as to initiate winding of the web on the second mandrel.